MIKROELEKTRONIKA D.O.O, Batajnički drum 23, 11000 Belgrade, Serbia
VAT: SR105917343 Registration No. 20490918
Phone: + 381 11 78 57 600 Fax: + 381 11 63 09 644 E-mail: office@mikroe.com
www.mikroe.com

Smoke 2 Click

PID: MIKROE-4299

Smoke 2 Click is a compact add-on board that contains the most efficient version of the smoke detector. This board features the ADPD188BI, a complete photometric system for smoke detection using optical dual-wavelength technology from Analog Devices. The module combines the dual photodetector with two separate LEDs and a mixed-signal photometric front-end ASIC, housed in a package that prevents light from going directly from the LED to the photodiode, without first entering the smoke detection chamber. It supports both an SPI and I2C serial interface, although only one is allowed at any given time in the actual application. This Click board™ is suitable for application as smoke detector that is more architecturally compatible for residential and commercial use.

Smoke 2 Click is supported by a mikroSDK compliant library, which includes functions that simplify software development. This Click board™ comes as a fully tested product, ready to be used on a system equipped with the mikroBUS™ socket.

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Specifications

Type	Optical
Applications	Can be used for application as smoke detector that is more architecturally compatible for residential and commercial use.
On-board modules	ADPD188BI - complete photometric system for smoke detection using optical dual-wavelength technology from Analog Devices ADP160 - small regulating LDO from Analog Devices ADG3308 - bidirectional level translator containing eight bidirectional channels from Analog Devices LTC3531 - synchronous buck-boost DC/DC converter from Analog Devices LTC3459 - synchronous boost converter from Analog Devices
Key Features	Low power consumption, high precission, integrates a highly efficient photometric front end, two light emitting diodes, and two photodiodes, equipped with smoke detection chamber, optimized SNR for signal limited cases, and more.
Interface	I2C,SPI
ClickID	No
Compatibility	mikroBUS
Click board size	L (57.15 x 25.4 mm)
Input Voltage	3.3V,5V,External

Resources

mikroBUS™

mikroSDK

Click board™ Catalog

Click boards™

Downloads

Smoke 2 click 2D and 3D files

Smoke 2 click example on Libstock

ADG3308 datasheet

ADPD188BI datasheet

Smoke 2 click schematic